REMARKS

Prior to this Reply, Claims 1-65 and 67 were pending. Through this Reply, Claims 1-12, 15-25, 27-33, 35, 36, 38-46, 49-61 and 65 have been amended, while Claims 62-64 and 67 have been cancelled without prejudice to, or disclaimer of, the subject matter contained therein. No claims have been added. Accordingly, Claims 1-61 and 65 are now at issue in the present case.

I.   Allowable Subject Matter

In the Office Action, the Examiner indicated that Claims 1-61 and 65 were allowable. Applicants have amended Claims 1-12, 15-25, 27-33, 35, 36, 38-46, 49-61 and 65. It should be noted that such claims were amended to correct obvious grammatical or typographical errors, or to improve readability. Importantly, none the claims were amended to overcome any of the cited references.

II.   Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected Claims 62-64 and 67 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,137,644 to Hetzler et al. ("Hetzler"). In order to expedite allowance of the application, Applicants have cancelled Claims 62-64 and 67.

III.   Amendments to Specification

A substitute specification without claims (and a marked-up version thereof) is provided herein under 37 C.F.R. 1.125 to improve clarity of the specification. No new matter has been added.

Applicants respectfully request that the substitute specification be entered.

IV. Amendments to Drawings

Applicants are submitting replacement Figures 1A-1I, 2A-2D and 3-6 (contained on Replacement Sheets 1-17) to improve the quality of the drawings.

Figure 1A has been modified to clarify zone 1, zone M, disk 1, disk N, disk surface 1, disk surface 2N, head 1, head 2N, virtual cylinder 1 and virtual cylinder n.

Figure 1B has been modified to clarify spindle motor 14, suspension arm 17, voice coil motor 20, read/write channel 51, motor driver 53, cache buffer 55 and general purpose computer 61.

Figure 1C has been modified to delete reference numerals 30a and 30b.

Figure 1D has been modified to clarify disk 1, disk 2, disk N, zone 1, head 1, head 3 and head 2N-1 and to delete "General Zone Layout of Disk Drive with N Disks and 2N heads."

Figure 1E has been modified to clarify zone 1, zone 2, zone 3, zone 4, zone 5 and zone M and to delete "Capacity Zones for a drive surface."

Figure 1F has been modified to clarify zone 1, zone M, virtual cylinder 1, virtual cylinder i and virtual cylinder j.

Figure 1G has been modified to clarify head 1, head 2 and head N, track 0 at head 2/ virtual cylinder 3 and to delete "Data Tracks in Virtual Cylinders in a Zone."

Figure 1H has been modified to clarify data tracks 30.

Figure 1I has been modified to clarify head 1, zone 1, zone M, servo track 1 at head 1/ zone M and data tracks 30 and to delete "Variable Servo Track and Variable Data Track Layout per zone."

Figure 2A has been modified to clarify data measurer 62, post-measurement data processor 64, change "pre-specified disk radial" to "prespecified" in data measurer 62, delete

24

"Processing" in format optimizer 66, change "VBPI" to "variable BPI" in format generator 68, change "no." to "number" at the inputs to format optimizer 66, to change "Drive yield & capacity" to "Storage capacity and yield" and extend the corresponding line at the input to format generator 68 and to change "Config. Pages" to "Configuration pages" and insert "storage" before "capacity" at the outputs of format generator 68.

Figure 2B has been modified to change "BPI Gain" to "kBPI gain" and "LogSER" to "Log(Symbol error rate) and "@OD" to "at outer diameter" and to insert "+ – Frequency sample" and "o – Least square polynomial fit" and "◊ – Projected frequency" and to delete "@" before "Target" and "@" before "Nominal" and "Least square polynomial fit (o) to data (+) and the projected sample (diamond) Head5 & Drive3."

Figure 2C has been modified to change the "2C" to "2D" and "OD" to "outer diameter" and "MD" to "middle diameter" and to delete both instances of "The" before "BPI" and "The surface plot of the joint CDF."

Figure 2D has been modified to change the "2D" to "2C" and "@OD" to "at outer diameter" and to delete "@" before "Nominal" and "Histogram with a normal distribution fit."

Figure 3 has been modified at step 300 to change "Appropriate (Number of) Drives" to "appropriate disk drives" and at step 302 to change "Nominal" to "nominal" and to insert "bit" before "density" and to delete ", e.g." and "i.e." and at step 304 to insert "bit" before "density" and to delete ", e.g.," and at step 306 to delete ", i.e.," and at step 310 to change "Onto the" to "into" and the second instance of "the" to "disk" and at step 312 to change "(on/off) track MSE and SER Measurements" to "head performance measurements" and at step 314 to change "the results in the Data Base" to "results in data base" and to point the arrow leaving step 300 from

25

step 304 to step 302 and to label step 320 and to delete "Vertical Zoning Data Collection Procedure."

Figure 4 has been modified at step 400 to change "MSE/SER" to "performance" and "And" to "and" and to insert "bit" before "density" and at step 402 to change "MSE or SER" to "performance metric" and at step 404 to change "And" to "and" and at step 406 (as relabeled) to change "MSE or SER" to "performance metric" and to delete "the specified" and at step 412 to insert "Generate frequency capability histogram at zone j for all heads" and at step 416 to change "And" to "and" and to relabel step 406 as 410 and step 410 as 406 and to label step 418 and to delete "Vertical Zoning Post-Processing and per zone BPI distribution Extraction."

Figure 5 has been modified at step 500 to change "high-density" to "high data" and to delete "n" and at step 502 to change "high-density" to "high data" and to delete "n" and at step 506 to change "order" to "rank" and at step 508 to change "high-density" to "high data" and "low density" to "low data density format" and "n" to "N" and at step 510 to change "assignment" to "assignments" and to delete "Head Assignment."

Figure 6 has been modified at step 600 to change "; track density (TPI) and wedge" to ", track density and servo spoke" and between steps 600 and 602 to change "wedges" to "servo spokes" and "Wedge" to "Servo spoke" and at step 602 to change "Generator" to "generator" and between steps 602 and 604 to change both instances of "#" to "Number of" and at step 604 to change "Optimizer" to "optimizer" and to the right of step 604 to change "Distributions" to "distributions" and between steps 604 and 606 to change "(Low/High) BPI density" to "High/low BPI" and "# Of (Low/High) density" to "Number of high/low BPI" and "allocation" to "allocations" and at step 606 to change "Generator" to "generator" and "Capacity" to "storage capacity" and at step 608 to change the first instance of "Capacity" to "Storage capacity" and the

second instance of "Capacity" to "storage capacity" and "And" to "and" and to label step 612 and at step 612 to change "Done" to "Stop" and to delete the arrow from step 610 to step 604 and "Format Generator/Format Optimizer Iteration."

No new matter has been added. Figures 1A-1I, 2A-2D and 3-6 constitute all of the drawings of the application.

V.   Conclusion

Applicants believe that no additional fees are due. Nevertheless, the Commissioner is hereby authorized to charge Deposit Account No. 50-2198 for any fee deficiencies associated with filing this paper.

Applicants believe that the above comments establish patentability. Applicants do not necessarily accede to the assertions and statements in the Office Action, whether or not expressly addressed.

Applicants believe that the application appears to be in form for allowance. Accordingly, reconsideration and allowance thereof is respectfully requested.

The Examiner is invited to contact the undersigned at the below-listed telephone number regarding any matters relating to the present application.

Respectfully submitted,

Tejpal S. Hansra
Registration No. 38,172
Hansra Patent Services
4525 Glen Meadows Place
Bellingham, WA 98226
(360) 527-1400

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